

SAMPLE ARTICLE FOR ACTA ELECTROTECHNICA ET INFORMATICA

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ABSTRACT

The body of the manuscript should be preceded by an abstract limited to about 10 lines, followed by up to 6 keywords. It should be written with great care. Particular emphasis should be put on concise description of the subjects studied, new methods used, and new or unusual results and conclusions.

Keywords: about 6 items

1. BRIEF INSTRUCTIONS FOR AUTHORS

Articles accepted for publication in Acta Electrotechnica et Informatica journal must be authorised and previously in journals unpublished scientific and professional articles. Contributions shall be submitted in the English language. The text of the article must be in A4 format, edited according to the specimen article that can be found on the web-site: <http://www.aei.tuke.sk>, and this shall be submitted in three hard copies and in electronic form. Also submitted on a designated form must be authorization of the Acta Electrotechnica et Informatica editorial board for publishing the article duly signed by all article authors. Kindly forward your contributions to the Acta Electrotechnica et Informatica redaction office: Faculty of Electrical Engineering and Informatics, Technical University of Košice, Letná 9, 04200 Košice, Slovak Republic, E-mail: aei@tuke.sk.

The quality of articles will be assessed by the editorial board based on two reviewers opinions that will remain anonymous to the authors of the article. The linguistic accuracy of the articles is the full responsibility of the author(s).

The contributions should be reasonably subdivided into sections and, if necessary, to subsections. For scientific papers the following scheme is recommended:

INTRODUCTION

The topics of the article should be defined clearly and short review of published essential solutions and comparison with the authors results should be given.

SUBJECT

The author presents his main ideas, mathematical formulations and their derivation. This part should be accompanied by exact references.

METHODS

This part includes the data on the measuring method and instruments as well as experimental results.

RESULTS

Results should be summarized briefly and main authors scientific contributions should be demonstrated.

DISCUSSION/CONCLUSIONS

The author presents a critical analysis, interpretation and evaluation of the obtained results. The results should be summarized briefly and author's scientific contribution should be indicated.

ACKNOWLEDGEMENT

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REFERENCES

References within the text should be referred to with consecutive numbers in square brackets. The references list should be arranged according to the order of citing and it should immediately follow the last page of the text.

BIOGRAPHY/BIOGRAPHIES

This part limited to about 10 to 12 lines about the author(s). The recommended content is: the year and place of birth, type of education and scientific degrees attained (field and year). Former and present affiliations and professional (research) interests and activities.

2. GUIDELINES FOR TYPESETTING

Tables

Refer to all tables in the text but design each table so that it is complete in itself. Care should be given to the headings of the tables. Each heading should include a description of the content of the table.

Figures

Figures should be provided in EPS (EPS 3.0 with no preview, or PS Level 2 are recommended), PDF, PNG or JPEG format. Use JPEG compression only for photographs; if the scanned image contains sharp transitions,

lines or text, use EPS or PDF. For layout of the figures PostScript fonts Times, Helvetica and Symbol are recommended (see Fig. 1 and 2). Physical symbols, units etc. in the figures should be typeset following the same conventions as follows.¹

Vectors and tensors should be printed in bold type (italic or upright, e.g. ***A***, ***a***, ***μ***, ***A***, ***a***, ***μ***), and bold sans serif type (e.g. **A**, **a**, **A**, **a**), respectively. Alternatively, a vector may be indicated by an arrow and a tensor by a double arrow above the symbol (e.g. \vec{A} , \vec{a} , \overrightarrow{A} , \overrightarrow{a} , \overleftrightarrow{A} , \overleftrightarrow{a}).

Indices which are variables or symbols for physical quantities should be printed in *italic (sloping)* type, and indices which are vectors should be printed as vectors (in bold italic). For all other indices, upright roman type should be used. Examples:

Upright indices	Sloping indices
g_n (n = normal)	x in p_x
μ_r (r = relative)	p in C_p
k_B (B = Boltzmann)	i, j in ω_{ij}
U_m (m = maximum)	R in U_R

The symbols and nomenclature according to the Document IUPAP 25 is recommended. SI units are preferred [1]. For some examples of mathematical typesetting see Chapter 8 of “The L^AT_EX Companion”, updated for L^AT_EX version 1.2 [2] or reference [3]. Some useful recommendations of typesetting for physicists and engineers can be found in [4].

Always use upright font for:

units	3.1 g cm ^{−3} , 3.4 mV
prefixes and constants	2 μm, sin(2πf)
prefix “femto” (10 ^{−15})	
requires kerning \/	fF, fW, fH, fT
functions and differential	
in integration	$\int_0^\pi \text{tg}(\cos x) dx$
second derivative of $f(x)$	$d^2 f/dx^2$, $\frac{d^2 f}{dx^2}$
total differential of $f(x, y)$	$\frac{\partial f}{\partial x} dx + \frac{\partial f}{\partial y} dy$
exponent e	e ^{5x}
imaginary unit i, j	e ^{−i5x} , e ^{jπ} + 1 = 0
real and imaginary part of z	Re z, Im z
text in subscripts	V_{R_E} , θ_{tr}
text in superscripts	2 nd , 3 rd

The authors will be avoid the use of custom packages. Include macros used with your files.

Useful *abbreviations for commands and environments* included in aei.cls:

Table 1 Abbreviations for commands in math mode and environments

Definitions	Results
<code>\uppi</code> , <code>\upmu</code>	π, μ (from upgreek package)
<code>\micro</code>	μ
<code>\e</code>	e
<code>\ud</code>	d
<code>\der{f}{x}</code>	$\frac{df}{dx}$
<code>\pder{f}{x}</code>	$\frac{\partial f}{\partial x}$
<code>\dd</code>	d^2
<code>\der[2]{f}{x}</code>	$\frac{d^2 f}{dx^2}$
<code>\pder[2]{f}{x}</code>	$\frac{\partial^2 f}{\partial x^2}$
<code>\ii</code>	i
<code>\jj</code>	j
<code>\dis</code>	<code>\displaystyle</code>
<code>\tg\dis\varphi</code>	tg φ
<code>\angs</code>	Å
<code>2.71\unit{\angs}</code>	2.71 Å
<code>\ohm</code>	Ω
<code>\Re</code>	Re
<code>\Im</code>	Im
<code>\celsius</code>	°C
<code>7\unit{\celsius}</code>	7 °C
<code>\degree</code>	°
<code>90\degree</code>	90°
<code>R\sub{E}</code>	R_E
<code>U_{ik}\up{rel}</code>	U_{ik}^{rel}
<code>\bfig</code>	<code>\begin{figure}</code>
<code>\efig</code>	<code>\end{figure}</code>
<code>\btabs</code>	<code>\begin{table}</code>
<code>\etabs</code>	<code>\end{table}</code>
<code>\beq</code>	<code>\begin{equation}</code>
<code>\eeq</code>	<code>\end{equation}</code>
<code>\beqa</code>	<code>\begin{eqnarray}</code>
<code>\eeqa</code>	<code>\end{eqnarray}</code>
<code>\bdsm</code>	<code>\begin{displaymath}</code>
<code>\edsm</code>	<code>\end{displaymath}</code>
<code>\etal</code>	et al.

Use the International Standard ISO 9:1995 to transliterate of Cyrillic characters into Latin characters [5], see for example reference [6].

¹Recommendation for numbers: groups of three digits may be separated by a thin space, but no comma or point should be used other than the decimal sign. Instead of a single final digits may be grouped (e.g. 3.141 593; 2.718 2818). The ISO recommendation is that the comma be used as the decimal sign even for texts written in English, but this is not standard in the United States.

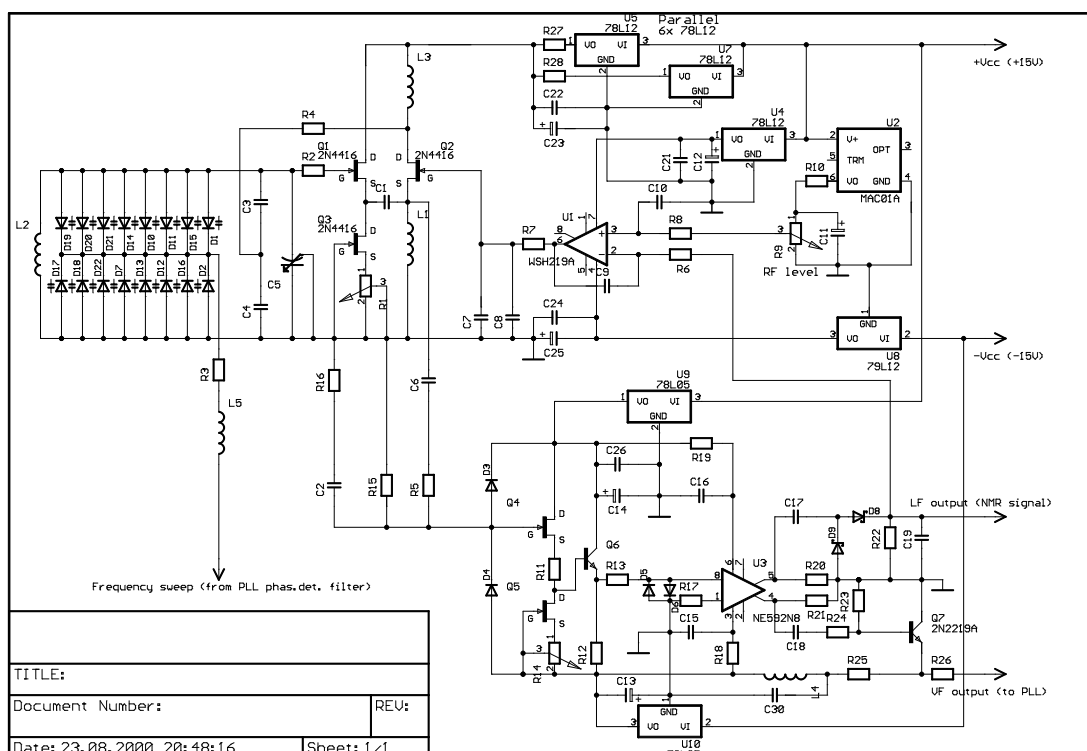


Fig. 1 Schematic circuit of the low-noise NMR oscillator

The enhanced sensitivity (see Fig. 1) of the low-noise NMR oscillator...

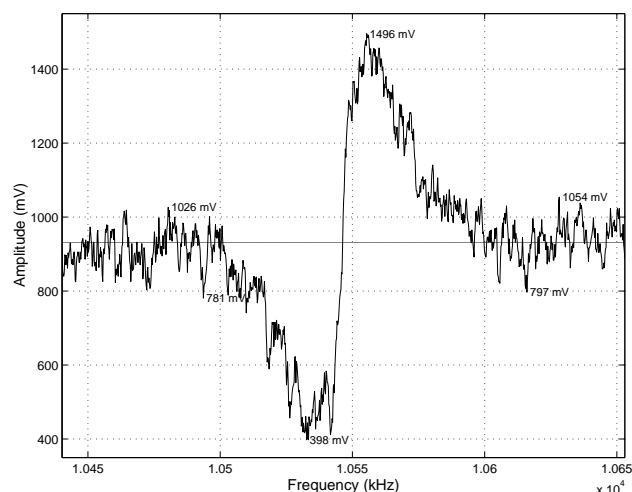


Fig. 2 First derivative of NMR spectrum

ACKNOWLEDGEMENT

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BIOGRAPHY

Jozef Mrkvíčka was born on 17. 11. 1966. In 1991 he graduated (MSc) with distinction at the department of Computers and Informatics of the Faculty of Electrical Engineering and Informatics at Technical University in Košice. He defended his PhD in the field of programming device and systems in 2000. Since 1995 he is working as a tutor with the Department of Computers and Informatics. His scientific research is focusing on parallel computers of the Data Flow type. In addition, he also investigates questions related with the diagnostics of complex systems.